

Lambda Semiconductors, is that the preliminary data sheet was published sometime in 1986.

Applicant respectfully requests that the Examiner confirm in her next communication that she has in fact received and considered the documents at issue.

Rejection Of Claims 56 and
70-80 Under 35 U.S.C. §112

The Examiner has rejected claims 56 and 70-80 of the original '070 patent on the ground that the phrase "adapted to supply [sic]" is functional and lacks structural support. Applicant respectfully traverses this rejection because, as recited, the claims define the metes and bounds of the claimed invention with a reasonable degree of precision and particularity, and are, therefore, definite as required by the second paragraph of 35 U.S.C. § 112.

The rejected claims state in pertinent part that the claimed integrated circuit has "first and second multi-function terminals for connection to external components adapted to apply control signals to the multi-function terminals." The language to which the Examiner objects is not solely functional; rather, it imposes a structural limitation in that it defines how the integrated circuit and the external components are to be interconnected in a switching regulator. In accordance with the "adapted to apply" language of applicant's claim, the external components of the switching regulator must be so structured that they can apply control signals to the multi-function terminals as recited. There is nothing wrong in defining the structures of the components of a circuit using this type of language. See In re Venezia, 530 F.2d 956, 958-9, 189 USPQ 149, 151-2 (CCPA 1976).

Accordingly, applicant respectfully submits that claims 56 and 70-80 are allowable as presented by applicant.

Rejection Of Claims 82-83
Under 35 U.S.C. §112

The Examiner has rejected claim 82 because the Examiner believes the phrase "when the current sense signal compares in a predetermined manner to the error signal" is unclear. Applicant respectfully submits that the meaning of this language can be readily determined from the other language of the claim and from the description of applicant's invention provided in the specification.

In the specification, applicant describes an exemplary integrated circuit embodiment of the invention which includes a comparator circuit 116 (see, e.g., FIG. 1). Comparator 116 receives and compares input signals from amplifiers 114 and 118. Amplifier 114 provides a voltage signal that is proportional to switch current. Amplifier 118 provides a second voltage signal indicative of the difference between a feedback signal applied to terminal FB and a reference voltage provided by reference voltage generator 120. Comparator 116 operates such that, "during normal feedback operation, switch 110 is turned off when switch current reaches a predetermined level set by the output of error amplifier 118" (col. 6, lines 48-50).

In the particular embodiments described in the specification, comparator 116 causes switch 110 to be turned off when the positive magnitude of the voltage signal from current switch amplifier 114 substantially equals or exceeds a threshold level equal to the positive magnitude of the voltage signal from error amplifier 118. However, there are many ways

that a person of ordinary skill in the art could implement the comparator function of the present invention. For example, it would be within the scope of the invention to provide a comparator that caused switch 110 to turn off only when the voltage signal from amplifier 114 substantially equals or exceeds a threshold voltage which is a diode drop above, or a diode drop below, the voltage signal from amplifier 118. Also, negative signal voltages could be used. In such circuits, the comparator would still perform the function of comparing the switch current to a predetermined level set by the output of error amplifier 118 to control the duty cycle of the switch.

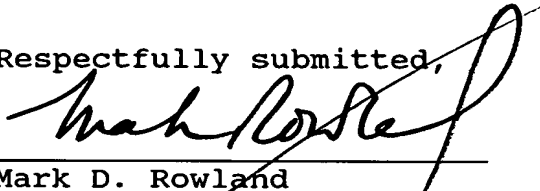
Accordingly, applicant has drafted claim 82 such that it defines the function of the comparator without reciting the specific predetermined manner in which the comparison between the switch current signal and the output voltage error signal is made, since such a recitation is not necessary to define the metes and bounds of the invention with particularity. It is clear from the claim that the predetermined manner chosen must result in the generation of a control signal that varies the duty cycle of the switching transistor as necessary to regulate output voltage. Applicant respectfully submits that the claim as presented is allowable under 35 U.S.C. § 112, second paragraph.

With respect to claim 83, applicant has amended the claim and added a new dependent claim 85 to eliminate the alternative language objected to by the Examiner.

Conclusion

Applicant respectfully submits that this application is now in condition for allowance. Accordingly, the Examiner is requested to allow this case for issue.

Respectfully submitted,


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